







The Orion Main Engine development level combustion injector (shown top left) has been installed on the test stand at Aerojet Sacramento. This hardware will be used in a series of hot-fire tests that will demonstrate the performance of the injector and includes unique tests to evaluate combustion stability as a pre-declared qualification. Testing will be conducted in June and July.

Fabrication of the Crew Module (CM) Reaction Control System (RCS) thruster has begun. The high fidelity mass simulators (shown middle left) from Aerojet Redmond will be integrated into a pod housing which will then be integrated into the Crew Module Ground Test Article. This hardware provides for demonstration of the installation of the engines with the CM pressure vessel and the outer moldline.



**Brantley Adams, Vice President and General** Manager of Jacobs Inc. Rome **Group; Larry Price, Deputy** Manager of the Orion Project -Lockheed Martin; Mayor Molly Ward of Hampton, Va.; Congressman Bobby Scott - 3rd District of Virginia; Mark Kirasich, **Orion Deputy Manager; and Steve** Jurczyk, Deputy Director of **NASA's Langley Research** Center participated in the Hydro Impact Basin Groundbreaking Ceremony (shown left) at NASA Langley on June 8th. The Hydro Impact Basin will measure 115 feet long, 90 feet wide and 20 feet deep. Once complete, researchers will conduct water impact tests that will ensure that future space vehicles are designed properly for safe water landings.

The recently constructed **Medium Fidelity Mockup** (shown right in foreground) took it's place in Building 9 at **Johnson Space Center next** to the Low Fidelity Mockup (shown right in background.) Construction on the mockup will continue over the next two months with the installation of exterior panels and other essential hardware components. The Medium Fidelity Mockup will serve as an updated model for evaluating hardware design and operational concepts with the astronaut crew and engineers.





Members of NASA's astronaut corps bestowed the much coveted Silver Snoopy Awards upon NASA and contractor employees during an awards ceremony held at Johnson Space Center in Houston, Texas. The employees were recognized for their significant contributions to the Orion crew exploration vehicle project. The awards were presented by JSC Center Director Mike Coats and NASA astronauts Chris Ferguson and Steve Frick, who noted that "these awards recognize your outstanding performance and thank you for the contributions you make to the safety of our space flight experience as well as those to come."

Recipients of this year's award are: John Kennedy of the Orion Project Office, Paige Carr, Matthew Carter, Stephen Fergason, Dr. Razvan Gaza, Peter Munoz, Frederik Rehnmark, Tammy Spadaccini, Todd Sullivan, Brian Tichenor, Viet Truong-Cao, Thomas Warner and Michael Ross Wells of Lockheed Martin and Katie Boone of Barrios Technology.

